



\*All present are expected to conduct themselves in accordance with our City's Core Values\*

## OFFICIAL NOTICE AND AGENDA

Notice is hereby given that the Solar Array Task Force of the City of Wausau, Wisconsin will hold a regular or special meeting on the date, time and location shown below.

### PUBLIC INFORMATION MEETING:

Date/Time:  
Location:  
Members:

### SOLAR ARRAY TASK FORCE

**Wednesday, January 31, 2024 at 6:30 p.m.**  
**Northcentral Technical College, 1000 Campus Dr, Rm A168, Wausau, WI 54401**  
Chad Henke, John Robinson, Jay Coldwell, Paul Svetlik, Susan Woods

### AGENDA ITEMS

<b>Presentation:</b>	Public Information Presentation by the Solar Array Task Force. Question and answer session with attendees following the presentation.
----------------------	--

Signed by Chad Henke, Chairperson

This Notice was posted at City Hall, on the City of Wausau website, and sent to the Daily Herald newsroom on 01/26/2024 @ 4:00PM. Questions regarding this agenda may be directed to the City Clerk.

*In accordance with the requirements of Title II of the Americans with Disabilities Act of 1990 (ADA), the City of Wausau will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs or activities. If you need assistance or reasonable accommodations in participating in this meeting or event due to a disability as defined under the ADA, please call the ADA Coordinator at (715) 261-6622 or [ADAServices@ci.wausau.wi.us](mailto:ADAServices@ci.wausau.wi.us) to discuss your accessibility needs. We ask your request be provided a minimum of 72 hours before the scheduled event or meeting. If a request is made less than 72 hours before the event the City of Wausau will make a good faith effort to accommodate your request.*



**CITY OF WAUSAU  
SOLAR ARRAY  
TASK FORCE**

---

January 31<sup>st</sup>, 2024

# TASK FORCE HISTORY

---

- Started meeting in the spring of 2023
- Members

Chad Henke – Chair

Paul Svetlik – Vice Chair

John Robinson

Susan Woods

Jay Coldwell

Goal is to make a recommendation for the Water Utility and City Council

# TASK FORCE TIMELINE

---

- Part 1
  - Collect Solar Background Information
    - Effectiveness of Solar
    - System Lifecycles
  - Utility Costs and Needs
    - New Utility costs
    - Solar Project Funding available

# TASK FORCE TIMELINE CONT.

---

- Part 2

Develop options

Size, Location, Configuration

Gather public input on more refined options. That is why we are here today.

- Part 3

Evaluate options

Long/Short Term Effectiveness, Practical, Monitorable, Cost, Community Acceptance

Public input and comment period in March 2024

# TODAY

---

- Discussion on size of the array
- Discussion on location of the array and cost differences
- Eric to discuss Task Force goals, current locations, costs
- Paul will lead Question and Answer

# TASK FORCE DISCUSSION SUMMARY-JUNE 2023

---

- Utilization and construction of solar generated power for City use follows the City's adopted Strategic Plan and the City's adopted resolution for Supporting Reduction of Greenhouse Gas Emissions and Energy Security.
- Utility is challenged to find innovative ways to reduce operational costs moving forward. Solar energy is a proven technology to reduce energy costs long term.
- Rate payers of the utility pay for the infrastructure and operation & maintenance on these initiatives. Need to look at benefits to all rate payers and balance any concerns brought forward about the project.
- Consider solar generation and use at locations that have the most beneficial impact for all rate payers in the city.
- Consider resiliency/sustainability to support services and operations to all city residents.
- Installation of solar generating infrastructure will consider the area or neighborhood it is to be installed and adapt the project to work with the neighborhood during design of the facility.
- Provide city wide educational outreach to notify the public of the city's objectives and inform rate payers of benefits, short and long term Established a benchmark goal of a 10-year pay back.

# TASK FORCE GOALS AS DISCUSSED

---

- Pay back goal of 10-years
- Minimize impact to neighborhoods where solar is installed. Neighborhood feedback and suggestions considered throughout the design of the proposed system.
- Design a solar array appropriately sized to increase resiliency & sustainability of the treatment facility. Be able to run portions of the facility during power outages (this would require storage).
- Maximize grant opportunities and rebates to reduce capital costs for shorter pay back period.
- Consider solar generation at locations that have the most beneficial impact for all rate payers in the city.
- Design the solar array so that it may be expanded in the future and consider the possibility of power storage in the future.
- Provide city wide educational outreach to notify the public of the city's objectives and inform rate payers of benefits.



# ARRAY SIZE

---

- Compare similar solar array size at various locations
  - ~1 MW size array – Electrical switch gear at the facility is sized for this size of array
    - Larger size array would require additional capital costs to upsize electrical equipment at the facility
  - From preliminary calculations this size array would provide up to 40% of the current facility power usage for direct use with some overgeneration and sell back to WPS
    - Minimizing sell back to WPS as the sell back price is very low
  - Looked at water treatment facility solar array options/locations

# ARRAY LOCATIONS AND COSTS

---

- Locations considered for a possible solar array
  - Arrays larger than about 1MW would require additional capital costs for upsizing electrical equipment at the treatment facility
  - Six solar array options have been considered
  - One additional option: No solar array & disposition of the property

# WELL HOUSE ARRAY

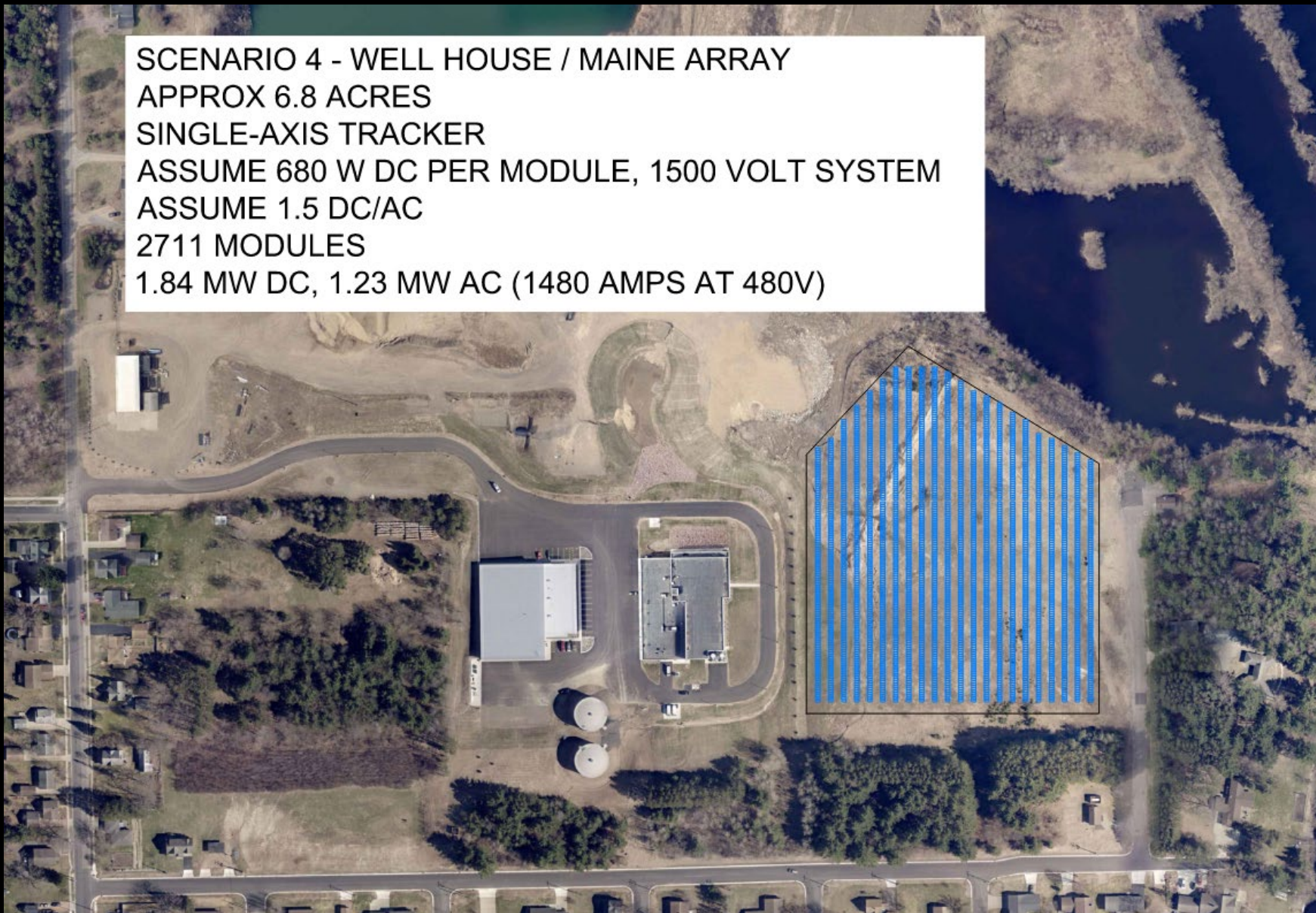


SCENARIO 1 - WELL HOUSE ARRAY  
APPROX 6 ACRES  
SINGLE-AXIS TRACKER  
ASSUME 680 W DC PER MODULE, 1500 VOLT SYSTEM  
ASSUME 1.5 DC/AC  
2464 MODULES  
1.68 MW DC, 1.118 MW AC (1120 AMPS AT 480V)



# TWO CITIES ARRAY

SCENARIO 4 - WELL HOUSE / MAINE ARRAY  
APPROX 6.8 ACRES  
SINGLE-AXIS TRACKER  
ASSUME 680 W DC PER MODULE, 1500 VOLT SYSTEM  
ASSUME 1.5 DC/AC  
2711 MODULES  
1.84 MW DC, 1.23 MW AC (1480 AMPS AT 480V)





# ROOFTOP ARRAY



SCENARIO 5 - ROOF ARRAYS  
APPROX 0.75 ACRES  
FIXED / BALLASTED ARRAY, MINIMUM 10' ROOF  
SETBACK  
ASSUME 680 W DC PER MODULE, 1000 VOLT SYSTEM  
ASSUME 1.5 DC/AC  
653 MODULES  
0.44 MW DC, 0.29 MW AC (350 AMPS AT 480V)



# NE FIXED ARRAY

SCENARIO 2 - NE FIXED ARRAY  
APPROX 5.4 ACRES  
FIXED ARRAY  
ASSUME 680 W DC PER MODULE, 1500 VOLT SYSTEM  
ASSUME 1.5 DC/AC  
3368 MODULES  
2.29 MW DC, 1.52 MW AC (1830 AMPS AT 480V)





# BAY SHORE ARRAY



SCENARIO 3 - BAY SHORE ARRAY  
APPROX 12.1 ACRES  
FIXED ARRAY  
ASSUME 680 W DC PER MODULE, 1500 VOLT SYSTEM  
ASSUME 1.5 DC/AC  
6866 MODULES  
4.67 MW DC, 3.11 MW AC (3800 AMPS AT 480V)

# BAY SHORE ARRAY





# ARRAY COSTS AND COST DRIVERS

Solar Array Estimated Cost and Drivers of Cost							
Project Description	1.118 MW Wellhouse Array- Single Axis Tracker	1.52 MW North East Fixed Array- Fixed Ballast	1.01 MW Bayshore Array-Fixed	3.11 MW Bayshore Array-Fixed	1.23 MW Two Cities Array- Single Axis Tracker	0.29 MW Rooftop Array-Fixed*	Do Nothing - No Solar Array Constructed
<b>Estimated Cost</b>	\$3,800,000	\$7,500,000	\$5,300,000	\$7,420,000	\$3,900,000	\$800,000	
<b>Significant Drivers of Cost</b>							
Array Type - Fixed, Tracking, Ballasted		X					
Site Prep-Clearing, Grubbing		X	X	X			
Electrical Interconnect & Site Access		X	X	X			

\*Roof Array estimate does not include any modifications to the existing structure.

# POTENTIAL FUNDING SOURCES AND OPTIONS

---

- Inflation Reduction Act - Percentage of construction costs
- Inflation Reduction Act – May have other opportunities upcoming
- WI Office of Energy Innovation (WI OEI) – Grants through the PSC
- Possible other BIL funding with the Dept. of Energy (DOE)
- Focus on Energy Rebates
- Loans/Borrowing – Bonding, Promissory Notes, possible other options

# DISCUSSION AND QUESTIONS

